

Introduction

This document presents an overview of the management direction for national wildlife refuges in Alaska. The primary sources of this management direction are the laws governing the National Wildlife Refuge System and the regulations, policies, and other guidance, both national and regional, developed to implement these laws. Although each refuge is unique, it is only one piece of this system. The management direction presented here represents the common base for management of the Alaska refuges and identifies those sideboards within which management of individual refuges must remain. The intent is to apply this management direction to each refuge, add pertinent refuge-specific information where appropriate, and adjust the management direction when necessary (i.e., specific direction in law, such as for reindeer grazing on Selawik and Yukon Delta refuges, or specific identifiable resource concerns that can be documented).

This document contains the following:

- Descriptions of the management categories
- The common management direction as interpreted from existing laws, regulations, policies, guidance, etc.
- Discussions of what and where refuge-specific information should be incorporated into individual refuge comprehensive conservation plans

The management category descriptions are not the same as those from the previous (1980s) round of conservation plans. Also, unlike the previous conservation plans, in which the descriptions evolved over the course of the process, these management category descriptions will remain constant in all the plans unless a well-justified exception is granted in writing by the regional chief of refuges.

Informational notes discussing refuge-specific management direction that needs to be incorporated into individual refuge plans are found in *italic, hidden type*.

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1. Management Categories

Five management categories, ranging from Intensive Management to designated Wilderness, are used to describe management levels throughout the refuges in Alaska. A management category is used to define the level of human activity appropriate to a specific area of the refuge. It is a set of refuge management directions applied to an area, in light of its resources and existing and potential uses, to facilitate management and the accomplishment of refuge purposes and goals. The Management Activities Table shows those management activities, public uses, commercial uses, and facilities that would be allowed in each management category and under what conditions.

1.1 Intensive Management

This category is designed to allow compatible management actions, public facilities, and commercial activities that may result in alterations to the natural environment. In Intensive Management areas, the presence of human intervention may be very apparent. Roads, buildings, and other structures are likely to be seen. Intensive Management is applied to the smallest area reasonable to accommodate the intended uses. When Intensive Management is proposed for an area, the specific purposes for its establishment will be described.

Natural processes or habitats may be modified through human intervention. Habitats may be highly modified to enhance conditions for one or more animal species. For example, water regimes may be artificially controlled to improve habitat for waterfowl.

High levels of public use may be accommodated and encouraged through modifications to the natural environment such as paving, buildings, developed campgrounds, and other facilities that could alter the natural environment in specific areas. Public facilities are designed to provide a safe and enjoyable experience of the natural environment and an increased understanding of refuge resources for a wide range of visitors. Facilities accommodate a large number of visitors while protecting refuge resources from damage through overuse.

Compatible commercial uses of refuge resources that result in alterations to the natural environment may be authorized in Intensive Management areas. All commercial uses are subject to the compatibility standard, must contribute to the purposes of the refuge, and require official authorizations such as special-use permits.

1.2 Moderate Management

Moderate Management is meant to allow management actions, public uses, commercial uses, and facilities that may result in changes to the natural environment that are temporary, or permanent, but small in scale and that do not disrupt natural processes. The natural landscape is the dominant feature of Moderate Management areas although the signs of human actions may be visible.

Management actions in the category of Moderate Management will focus on maintaining, restoring, or enhancing habitats to maintain healthy populations of plants and animals where natural processes take over. For example, logging, tree-crushing, and prescribed burning may be used to convert mature forests to earlier native seral stages to enhance browse for moose. In general, management facilities, both temporary and permanent, will be allowed for the purposes of gathering data needed to understand and manage resources and natural systems of the refuge. Structures will be designed to minimize overall visual impact.

Public facilities provided in Moderate Management will allow the public to enjoy and use refuge resources in low numbers over a large area or they will encourage the short-term enjoyment of the refuge in focused areas, while protecting habitats and resources. The emphasis is on small facilities that encourage outdoor experiences. Facilities such as public-use cabins, rustic campgrounds, kiosks, viewing platforms, trails, and toilets may be provided. Facilities will be designed to blend with the surrounding environment.

Compatible commercial activities may be allowed where impacts to natural processes and habitats are temporary (e.g., small-scale logging where an earlier seral stage meets management goals; facilities in support of guiding and outfitting services, such as tent platforms or cabins that encourage enhanced public use. All commercial activities and facilities require authorizations such as special-use permits.

1.3 Minimal Management

Minimal Management is designed to maintain the natural environment with very little evidence of human-caused change. Habitats should be allowed to change and function through natural processes. Administration will ensure that the resource values and environmental characteristics identified in the conservation plan are conserved. Management actions that change existing habitats should be designed and implemented so that a natural appearance is maintained. Public uses,

commercial activities, and facilities should minimize disturbance to habitats and resources. Ground-disturbing activities are to be avoided whenever possible.

Management actions in this category focus on understanding natural systems and monitoring the health of refuge resources. Generally, no permanent structures are allowed (except cabins). Temporary structures may be allowed where removal is planned after the period of authorized use and the site can be rehabilitated using plants native to the immediate area. Existing cabins may be allowed for administrative, public-use, subsistence, or commercial (e.g., guiding) purposes. New subsistence or commercial cabins may be authorized if no reasonable alternative sites exist. Public-use or administrative cabins may be constructed if necessary for health and safety.

Public use of the refuge for wildlife-dependent recreation and subsistence activities is encouraged. Public-use facilities are not generally provided. Mechanized and motorized equipment may be allowed when the overall impacts are temporary or where its use furthers management goals.

Compatible commercial activities may be allowed where the evidence of those activities does not last past the season of use, except as noted in the preceding discussion of cabins. The primary commercial activities are likely to be guiding and outfitting of recreational activities such as hunting, fishing, hiking, river floating, and sightseeing. All commercial activities and facilities require authorizations such as special-use permits.

1.4 Wild and Scenic Rivers

The Wild and Scenic Rivers category applies to those rivers and a corridor of the adjacent lands that have been designated by Congress as part of the Wild and Scenic Rivers System. This is a national system of designated rivers that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. All designated rivers on refuges in Alaska are classified as Wild Rivers. Wild Rivers are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and waters unpolluted.

Within this management category, waterbodies are maintained in natural, free-flowing, and undisturbed conditions. Emphasis is placed on maintaining the natural function of the river system, and the appearance and sense of wildness are preserved. Evidence of human activities is minimal. Each river within the system has particular values for which it was designated; the management of a Wild River must protect those

specific values. Management actions focus on understanding, monitoring, and maintaining the resources, natural ecosystem function, and aesthetics of the river corridor.

Permanent structures are not generally allowed, with the exception of historic and cultural resources and, in certain circumstances, subsistence or administrative cabins and associated structures. Cabins, temporary structures, and hardened sites will be visually shielded from the river wherever possible. Where shielding is not practical, facilities and structures are as rustic or unobtrusive in appearance as possible. Public-use facilities would provide opportunities for primitive recreation experiences.

Commercial uses of a Wild River corridor will be allowed where those activities do not detract from the values for which the corridor was designated. Primary commercial uses are likely to be commercial recreation services such as guided float, sightseeing, fishing, and hunting trips. A variety of management actions may be taken to maintain the values and classification of the corridor. All commercial activities and facilities require authorizations such as special-use permits.

1.5 Wilderness

This category applies only to areas designated by Congress as units of the National Wilderness Preservation System; areas proposed for Wilderness designation will be managed under minimal management, consistent with ANILCA 1317(c) and Service policy. Designated Wilderness will be managed under the Wilderness Act of 1964 and the “unique-conditions-in-Alaska” exceptions provided by ANILCA. Wilderness units in Alaska are living, working landscapes where people are part of the ecosystem. Because Wilderness units are part of a nationwide, multi-agency system, the Service recognizes that responsibilities for managing refuge wilderness go beyond the mission of the Service and the other purposes for which individual refuges were established.

The history and intent behind the Wilderness Act make Wilderness more than just another category of land management. Wilderness encourages having a broadened perspective on the refuge landscape, one that extends beyond managing it solely as wildlife habitat. Wilderness is managed as an area “retaining its primeval character and influence.” In addition, Wilderness provides human visitors with opportunities for solitude and primitive recreation, which may be characterized in terms of experiential dimensions such as discovery, self-reliance, and challenge.

Wilderness areas are managed to preserve their experiential values as well as aesthetic, scientific, and other related values. Research has shown that some values of Wilderness extend beyond their boundaries to people who may never visit but who benefit from the protection of natural ecological processes and the simple knowledge that such places exist. In managing Wilderness, managers are encouraged to consider these off-site and symbolic values, as well as tangible resource values, in decision-making.

Permanent structures are not generally allowed, with the exception of historic and cultural resources and, in certain circumstances, subsistence use, administrative structures, or those structures necessary for the protection of human health and safety. Facilities and structures are rustic and unobtrusive in appearance.

Commercial uses of Wilderness Areas are generally limited to those activities that facilitate enjoyment of the areas such as guided fishing, hunting, and wilderness trips. A variety of management actions may be taken to maintain the wilderness values of the area. All commercial activities and facilities require authorizations such as special-use permits.

1.6 Special Management

Special Management lands are managed within one of the categories described previously but have additional requirements because of their status. An example of Special Management areas would be Research Natural Areas.

1.6.1 Management of Selected Lands

The Service retains management responsibility for lands selected but not yet conveyed to Native village and regional corporations or to the State of Alaska. The appropriate Native corporation or agency of the State of Alaska will be contacted, and its views considered prior to implementing a management program or issuing a permit involving these lands. Fees collected for special-use or right-of-way permits will be held in escrow until the selected lands are conveyed or relinquished. Management directions for these lands will be the same as for adjacent refuge lands.

1.6.2 Alaska Native Claims Settlement Act Section 22(g)

Section 22(g) of the Alaska Native Claims Settlement Act (ANCSA) provides that those refuge lands established prior to December 18, 1971, that are conveyed to village corporations remain subject to the laws and regulations governing the use and development of the refuge. Activities occurring on these

lands are subject to the compatibility standard, as described in 50 CFR 25.21(b)(1). In addition, the Service retains the right of first refusal on village corporation lands if these lands are ever offered for sale.

The refuge will work with the landowner to balance the commercial development and use of 22(g) lands with the protection of resources important to the purposes of the refuge.

2. Management Policies and Guidelines

Management of the refuge is governed by federal laws, such as the National Wildlife Refuge System Administration Act of 1966 (Refuge Administration Act; 16 U.S.C. 668dd), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; P.L. 105-57); and the Alaska National Interest Lands Conservation Act of 1980, by regulations implementing these laws, by treaties, by Service policy, and by principles of sound resource management—which establish standards for resource management or limit the range of potential activities that may be allowed on the refuge. Under all the action alternatives being considered, management of the refuge will comply with the factors described previously. As a result, the alternatives share a set of common management policies and guidelines. These directions provide a common management base on which each of the alternatives is built and represent the typical level of management necessary to comply with existing law, regulation, and policy.

2.1 Management Emergencies

It may be necessary, when emergencies occur on the refuge, to deviate from policies and guidelines discussed in the conservation plan. Activities not allowed on the refuge or under a specific management category, as shown in the Management Activities Table, may occur during or as a result of emergencies. For example, if naturally occurring or human-caused actions (e.g., landslides, floods, fires, droughts) adversely affect refuge resources, it may be necessary to undertake rehabilitation, restoration, habitat improvement, water management, fisheries enhancement, or other actions that would not otherwise be allowed to the same extent on the refuge. Threats to human health and safety may also result during emergencies. In emergencies, the refuge manager is authorized to take prudent and reasonable actions to protect human life and to address immediate health, safety, or critical resource-protection needs.

2.2 Land Exchanges and Acquisitions

Under Section 1302 of ANILCA, the Service may acquire by purchase, donation, or exchange any lands within the boundaries of Alaska refuges. Proposed land exchanges or acquisitions must benefit fish and wildlife resources, satisfy other purposes for which the refuge was established, or be necessary to satisfy other national interests. The Service can also purchase conservation easements or enter into cooperative management agreements to meet these objectives.

2.3 Land Conservation Planning

Department of the Interior and Service policies require development of a step-down plan, called a land conservation plan, addressing priorities for habitat conservation within refuge boundaries. Land conservation plans inform private landowners what land within refuge boundaries the Service would like to see conserved for fish and wildlife habitat. The plans do the following:

- Identify the private lands within the refuge boundary that the Service believes should be conserved
- Display the relative protection priority for each parcel
- Discuss alternative means of land and resource conservation
- Analyze the impacts on local residents of acquisition

In Alaska, the Service only acquires land from willing landowners. It is Service policy to acquire land only when other methods of achieving goals are not appropriate, available, or effective. Sometimes resource conservation goals can be met through cooperative management agreements with landowners or by similar means. The refuge would work with all landowners to ensure that overall fish and wildlife and habitat values within the refuge are conserved.

A pre-acquisition environmental site assessment is required for all real property proposed for acquisition by the Service or for public domain lands returning to Service jurisdiction (USFWS, Part 341 FW 3).

A land conservation plan for the refuge was completed on <is scheduled to be completed by >.

2.4 Compatibility Determinations

The Refuge Administration Act states that “the Secretary is authorized, under such regulations as he [or she] may prescribe, to . . . permit the use of any area within the System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access whenever he [or she] determines that such uses are compatible”

A compatible use is a proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with nor detract from the fulfillment of the National Wildlife Refuge System mission or the purposes for which the national wildlife refuge was established. Economic uses must

contribute to achieving refuge purposes and the System mission. Compatibility determinations are not required for refuge management activities, except economic activities.

If a use is found to be incompatible, the refuge would follow normal administrative procedures for stopping the action. If the use was a new use requiring a special-use permit, the refuge manager would not issue a permit. If the use was an existing use already under permit, the refuge manager would work with the permittee to modify the use to make it compatible or would terminate the permit.

Ending incompatible uses that do not require a special-use permit or other formal authorization, or that cannot be addressed by other Federal or state agencies, would require the refuge go through the normal rule-making process. This would include publishing in the Federal Register the proposed regulations and providing opportunity for public comment.

Draft compatibility determinations for uses on the refuge are found in Appendix . Public comment on the draft determinations will be addressed in the final determinations released with the final conservation plan.

Compatibility determinations for existing hunting, fishing, wildlife observation and photography, and environmental education and interpretation must be re-evaluated with the preparation or revision of a comprehensive conservation plan or at least every 15 years, whichever is earlier. Compatibility determinations for all other uses must be re-evaluated every 10 years or earlier if conditions change or significant new information relative to the use and its effects becomes available.

Additional details on applying compatibility standards and completing compatibility determinations are found in the compatibility regulations at 50 CFR Parts 25, 26, and 29 and Part 603 FW 2 of the Service Manual (USFWS).

2.5 Mitigation

In the interest of serving the public, it is the policy of the Service, throughout the nation, to seek to prevent, reduce, or compensate for losses of fish, wildlife, and their habitats, and uses thereof, from land and water development. To that end, the Service developed a "Mitigation Policy" in 1981 that includes measures ranging from avoiding an activity that results in loss of such resources to seeking compensation by replacement of or substitution for resource loss.

The Service will promulgate regulations, develop stipulations, and issue permits to reduce or eliminate potential adverse

impacts resulting from compatible activities that may be authorized under this plan. These regulations, stipulations, and permits would mitigate impacts in a variety of means, as stipulated in the Mitigation Policy guidelines (USFWS, Part 501 FW 2.1). The means, in order of application, are as follows:

1. Avoiding the impact altogether by not taking a certain action or parts of an action
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
5. Compensating for the impact by replacing or providing substitute resources or environments

When determining activities or uses as compatible, it is important to remember that projects should be designed first to avoid adverse impacts. The Service generally would not allow compensatory mitigation on National Wildlife Refuge System lands, and only in limited and exceptional circumstances could compensatory mitigation be used to find an activity compatible. The Service Manual, Part 501 FW 2 and 603 FW 2, provides more information

Mitigation may consist of standard stipulations such as those attached to right-of-way permits; special stipulations that may be attached to leases or permits on a site-specific basis; and site-specific, project-specific mitigation identified through detailed step-down management plans or the environmental assessment process. In all instances, mitigation must support the mission of the National Wildlife Refuge System and must be compatible with the purposes of the refuge. The degree, type, and extent of mitigation undertaken would depend on the site-specific conditions present and the management goals and objectives of the action being implemented.

2.6 Coastal Zone Consistency

Although federal lands, including lands included in the National Wildlife Refuge System, are excluded from the coastal zone (16 U.S.C., Section 1453[1]), the Coastal Zone Management Act of 1972, as amended (PL 92-583), directs federal agencies conducting activities within the coastal zone or that may affect any land or water use or natural resources of the coastal zone to conduct these activities in a manner that is consistent “to the

maximum extent practicable”¹ with approved state management programs.

The Alaska Coastal Zone Management Act of 1977, as amended, and the subsequent Alaska Coastal Management Program and Final Environmental Impact Statement (1979) establish policy guidance and standards for the review of projects within or potentially affecting Alaska’s coastal zone. In addition, specific policies have been developed for activities and uses of coastal lands and water resources within regional coastal resource districts. Most incorporated cities, municipalities, and boroughs as well as unincorporated areas (coastal resource service areas) within the coastal zone now have state-approved coastal management programs.

Although state and coastal district program policies are to guide consistency determinations, more restrictive Federal agency standards may be applied. Federal regulations state that “(w)hen Federal agency standards are more restrictive than standards or requirements contained in the State’s management program, the Federal agency may continue to apply its stricter standards . . .” (15 CFR, Section 930.39[d]).

Section is a consistency determination covering all the alternatives for management of refuge that are addressed in this document.

2.7 Cooperation and Coordination with Others

2.7.1 *Federal, State and Local Governments*

The refuge will continue to work closely with those Federal, state, and local governments and agencies whose programs affect, or are affected by, the Refuge. State and local government input will be sought during the development of regulatory policies addressing management of the refuge system (Executive Order 13083—Federalism). When possible, the Service will participate in interagency activities (such as joint fish and wildlife surveys and co-funded research), cooperative agreements, sharing data, and sharing equipment and/or aircraft costs to meet mutual management goals and objectives.

The refuge and the State of Alaska will cooperatively manage the fish and wildlife resources of the refuge. The Master Memorandum of Understanding between the Service and the

¹ “To the maximum extent practicable” means, “to the fullest degree permitted by existing law (15 CFR, Section 930.32).”

Alaska Department of Fish and Game (dated March 13, 1982) defines the cooperative management roles of each agency (see Appendix). Further discussion of intergovernmental cooperation regarding the preservation, use, and management of fish and wildlife resources is found in Title 43 CFR, Part 24 (Department of the Interior Fish and Wildlife Policy: State and Federal Relationships).

2.7.2 Tribes and Native American Organizations

The Service's Native American Policy (USFWS 1994) identifies general principles that guide the Service's government-to-government relationships with tribal governments in the conservation of fish and wildlife resources. Additional guidance has been provided by Executive Order 13084, "Consultation and Coordination with Indian Tribal Governments," issued May 14, 1998, and the Department of the Interior-Alaska Policy on Government-to-Government Relations with Alaska Native Tribes issued January 18, 2001 (USDI 2001). The refuge will maintain government-to-government relationships with tribal governments. The refuge will also work directly with regional and village corporations and respect Native American cultural values when planning and implementing programs on the refuge.

2.7.3 Owners of Refuge Inholdings and Adjacent Lands

The refuge will work cooperatively with inholders and adjacent landowners, providing information on refuge management activities and policies. The refuge will consult periodically with them regarding topics of mutual interest; will respond promptly to concerns over refuge programs; and will participate in cooperative projects (e.g., water-quality monitoring and fish and wildlife management).

2.7.4 Other Constituencies

The refuge will inform local communities, special interest groups, and others who have expressed an interest in or are affected by refuge programs about refuge management policies and activities. The refuge will seek input from these constituents when issues arise that may affect how the refuge is managed. Whenever possible, local residents and special interest groups will be asked to participate in refuge activities so their expertise and local knowledge can be incorporated into refuge management.

2.8 Ecosystem and Landscape Management

Species do not function alone; they function together in the environment as part of an ecosystem. The refuge will manage the resources of the refuge by employing ecosystem-management techniques. Individual species are viewed as integral to the diversity of those ecosystems and as such are indicators of the healthy functioning of the entire ecosystem. When the Service identifies species to use as indicators of the health of the ecosystem, it will do so through a rigorous scientific process involving the Alaska Department of Fish and Game and other entities.

Inventorying, monitoring, and maintaining a comprehensive database of selected ecosystem components are critical for making refuge management decisions and for ensuring the proper long-term stewardship of refuge ecosystems. This includes regular and recurring monitoring of status and trends for ecosystem components such as fish, wildlife, plants, climatic conditions, soils, and waterbodies. All monitoring will employ appropriate disciplines, new technologies, and scientific capabilities whenever practical.

2.8.1 Air Quality

The Service's authorities for air-quality management are included in several laws. The most direct mandates to manage air resources are found in the Wilderness Act and the Clean Air Act.

The Service is required by the Clean Air Act to preserve, protect, and enhance air quality and air quality-related values on Service lands. Air quality-related values include visibility, plants, animals, soil, water quality, cultural and historical resources, and virtually all resources that are dependent upon and affected by air quality. In addition, the Wilderness Act requires the Service to protect and preserve the Wilderness character, including the pristine air quality, of designated areas.

Class I air-quality sites receive the highest level of protection. Very little deterioration is allowed in these areas, and the Federal land manager has an "affirmative responsibility" to protect air quality-related values on those lands. The Service manages three Class I air-quality sites in designated Wilderness on the Alaska Maritime National Wildlife Refuge. All other lands managed by the Service in Alaska are classified as Class II and also receive protection through the Clean Air Act. Moderate deterioration, associated with well-managed growth, is allowed in Class II areas.

If air quality or related resources are at risk, the refuge manager will work with the Service's Air Quality Branch; the Regional air quality coordinator; the Alaska Department of Environmental Conservation and other state, local, and Federal agencies; and the public, as appropriate, in developing an air-quality management plan as outlined in the Service Manual, Part 563, FW 2.8 (USFWS).

2.8.2 *Water Resources (Hydrology) Management*

Every national wildlife refuge in Alaska shares the common purpose of ensuring that water resources are maintained and protected. ANILCA mandates that the Service safeguard water quality and necessary water quantity to conserve fish and wildlife populations and habitats in their natural diversity.

The National Wildlife Refuge System Administration Act 16 (USC 660dd) and the Service Manual (403 FW 1-3) direct the Service to obtain, to the extent practicable, water supplies of adequate quantity and quality for Service facilities, for refuge purposes and as trust resources, and to obtain the legal right to use that water through state laws, regulations, and procedures.

The Alaska Region conducted a water-resources threats analysis (Harle 1994) for the purpose of guiding water resource investigations and protecting water resources by acquiring instream water rights protection. Based on the results of the threats analysis, the Water Resources Branch developed a strategic plan for systematically quantifying and the surface water on refuges within Alaska (Bayha et al. 1997).

Using existing data, or through the collection of hydrologic and biologic data, the Service applies to the State of Alaska for appropriative water rights for instream water reservations and for water withdrawals to meet the purposes identified in ANILCA and the Refuge System Improvement Act. Federal reserved water rights will be quantified and asserted when necessary to accomplish the purposes of the reservation (Regional Policy RW-27, Planning and Filing Instream Water Right Applications, February 18, 1994) or when the United States is properly joined in a general adjudication pursuant to the McCarran Amendment (43 U.S.C. 666).

Establishing state water rights is only a part of a management strategy to protect refuge resources and to understand ecosystem processes. Collection of hydrologic data allows the Service to accomplish the following:

- Plan flood-plain and riparian zone management
- Estimate flow for ungauged refuge streams

- Supplement historical or current fisheries and wildlife studies
- Detect and evaluate future natural or human-induced changes in the hydrologic system
- Provide stream profile and velocity data for the design of fish weirs or other structures
- Estimate the potential for future flooding and erosion
- Analyze the impacts of proposed projects on stream flow and water supply
- Provide a basis for decision-making about commercial operations on some important streams

All facilities and activities on refuges must comply with pollution-control standards set by state and Federal laws (e.g., the Clean Water Act [33 U.S.C. 1251] and the Safe Drinking Water Act [42 U.S.C. 300]) and the regulations, policies, and standards implementing these laws.

Navigable Waters

The navigability or nonnavigability of a waterbody often determines the ownership of lands beneath inland waters within national wildlife refuges in Alaska. If the waterbody is nonnavigable, the upland landowner(s) have title to the bed of the water. Ownership of submerged lands of navigable waters is in dispute on “lands withdrawn or otherwise set apart as refuges or reservations for the protection of wildlife . . .” (Alaska Statehood Act Pub. L. 85-508) and on certain other Pre-Alaska statehood withdrawals. On all other lands, if the waterbody is navigable, the State of Alaska has title.

The ownership of most submerged lands within Alaska refuges is not settled. Federal administrative and judicial actions help determine navigability and what property interest the United States has in submerged lands. Issues of title ownership and removing clouds on titles of submerged lands beneath navigable waters are ultimately resolved through quiet-title actions in Federal court, or by recordable-disclaimer-of-interest-in-lands decisions by the Department of the Interior. Navigability determination criteria are based on long-established Federal case law. Where navigability and submerged landownership is disputed, the final authority rests with the Federal courts.

The Service will work with the State of Alaska on specific waterbodies to resolve issues concerning ownership and use of rivers, lakes, and streams within refuge where management conflicts arise. Formal and informal management agreements between the Service, the State of Alaska, and other landowners

may be developed when needed for specific waterways within the refuge.

2.8.3 Visual Resource Management

Visual resource management has two primary purposes: (1) to manage the quality of the visual environment and (2) to reduce the visual impact of development activities. To accomplish these purposes, the refuge will identify and maintain the scenic values of the refuge and will, within the constraints imposed by the conservation plan, minimize the visual impacts of development and use of the refuge. All activities and facilities on the refuge will be designed to blend into the landscape to the extent practical. The Service will cooperate with other Federal, state, local, tribal, and private agencies and organizations to prevent significant deterioration of visual resources.

2.8.4 Cultural, Historical, and Paleontological Resources

The Service has long-term responsibilities for cultural resources on refuge lands. Cultural resources on refuge lands are managed under a number of laws, executive orders, and regulations, including the Antiquities Act; the National Historic Preservation Act, as amended; the Archaeological Resources Protection Act; the American Indian Religious Freedom Act; the Native American Graves Protection and Repatriation Act; Executive Order 11593, Protection and Enhancement of the Cultural Environment; Executive Order 13007, Indian Sacred Sites; and Section 36 of the Code of Federal Regulations, Part 800.

The 1980 amendments to the National Historic Preservation Act direct the Service to inventory and evaluate cultural resources for their eligibility for inclusion on the National Register of Historic Places. All significant historic, archaeological, cultural, and paleontological resources on the refuge will be protected and managed in accordance with Federal and state law. Because of limits of time, funding, and staffing, the Service must designate priorities in evaluating cultural resources on refuge lands. Pending a complete evaluation, all cultural resources will be considered potentially eligible for the National Register. When funds become available, the first priority will be to prepare a substantial and comprehensive cultural resource overview to be used to guide future inventory and evaluation. Sites determined to be eligible for the National Register will be protected with an appropriate cultural resources management plan.

A cultural resource guide, providing interim guidance to the refuge pending completion of the required cultural resource overview and management plan, will be completed by (was

completed on). The cultural resource guide will be updated every five years or until a cultural resources management plan is completed. Cultural resource guides and cultural resources management plans are considered step-down plans.

It is illegal to collect archaeological materials and/or vertebrate paleontological remains on the refuge without a permit issued under the provisions of the Archaeological Resources Protection Act (for archaeological materials) or of the Antiquities Act of 1906 (vertebrate paleontological remains). Historic aircraft and other World War II material will be managed in accordance with a policy published December 20, 1985, in the Federal Register (F.R. 50:51952-51953). These materials may be collected on refuge lands only as authorized by a permit issued to a qualified organization or individual. Cultural resource research permits will only be issued to qualified individuals operating under appropriate research designs. The refuge will encourage archaeologists, historians, ethnologists, and paleontologists from educational institutions and other government agencies to pursue their research interests on refuge lands so long as these research interests are compatible with refuge purposes. Research that collects data from threatened sites and minimizes disturbance to intact sites will be encouraged.

When any federal undertaking—including any action funded or authorized by the Federal government and having the potential to directly or indirectly affect any archaeological or historic site—is planned, a consultation must be initiated with the State Historic Preservation Officer, under Section 106 of the National Historic Preservation Act. If sites that may be affected are found in the project area, their significance will be evaluated to determine their eligibility for inclusion in the National Register. For eligible sites, consultation will result in a course of action causing the least possible impact. Impacts may be minimized in a variety of ways, including relocation or redesign of a project, site hardening, mitigation through information collection, or cancellation of the project if no alternatives are feasible. To protect archaeological and historic sites, other uses may be precluded. Private interests proposing to conduct commercial uses on the refuge will normally be required to fund studies necessary for consultation and for mitigation of impacts.

The refuge will implement Executive Order 13007, Indian Sacred Sites, allowing access to identified sacred sites and avoiding adversely affecting the physical integrity of these sites. Where appropriate, the Service will maintain the confidentiality of sacred sites.

Further information on cultural resources management can be found in Part 614 FW 1-5 of the Service Manual and the

Service's Cultural Resources Management Handbook (USFWS 1992).

2.9 Fish and Wildlife Habitat Management

2.9.1 *Habitat Management*

Habitats are managed in keeping with the purposes, goals, and objectives of a refuge. In most cases, this means habitats are managed to maintain a natural state with little or no human intervention. In some cases, habitats are manipulated to maintain or improve conditions for selected fish and wildlife populations, to control plant species, or to manage fire fuels on refuge lands. Any habitat management and manipulation activities will be carried out in support of the purposes, goals, and objectives of the refuge. The refuge will use the least-intrusive management measures needed. Where practical and economically feasible, habitat management practices will maintain a natural appearance on the landscape. Habitat-management practices, even those carried out for the benefit of a single species or small group of species, will, to the extent possible, contribute to the widest diversity of native (indigenous) wildlife species and habitat types.

Habitat management and manipulation may be achieved by mechanical, chemical, and manual methods, including the use of fire, or by a combination of methods. Mechanical treatment could include mechanical removal, crushing, cutting, or mowing. When applicable, state and Federal guidelines for timber management will be followed. Mechanical treatment could also include the construction of fish passages, fish ladders, fish barriers, water impoundments and structures such as fences or artificial nests, and raising or lowering of water levels to manage wildlife or waterfowl habitat. Riparian or aquatic habitat management and manipulation may be achieved by acquiring instream-flow reservations or making beneficial water diversions.

Chemical treatment would involve the use of chemicals to restore nutrient levels in a lake system (fertilization) for fisheries restoration, to reduce hazardous fuels, or to eliminate nonnative plant and animal species, normally by killing them or destroying their ability to spread or prosper. Before chemical treatment is used, the refuge will analyze the need for action, the options for treatment, and the potential impacts of those options. A pesticide-use proposal must be approved by the Regional Office before chemical controls are used on refuge lands (30 AM 12 and 7 RM 14.)

Manual treatment could include the use of hand tools to remove, reduce, or modify hazardous fuels or nonnative plant or animal species or to modify habitats (e.g., removal of beaver dams).

Aquatic habitat modification may include activities and structures such as streambank restoration, passage structures, and fish barriers or obstacles removal that results in physical modification of aquatic or riparian habitats to benefit fish species. These activities would be undertaken to maintain or restore native fish populations and may require appropriate NEPA compliance and compatibility determinations.

2.9.2 Fire Management

Fire management is the full range of activities necessary to conserve, protect, and enhance habitat and to maintain desired ecological conditions for the benefit of fish and wildlife. Fire-management activities include preparedness, emergency suppression operations, wildland fire use, fire prevention, education, monitoring, research, prescribe fire, hazardous fuel reduction, and mechanical treatments. All activities will be conducted in accordance with refuge, Service, and Department of Interior policies and approved interagency and refuge-specific fire management plans. Additional guidance on fire management can be found in the Service Manual (USFWS, 621 FW 1-5).

Such a fire management plan provides the basis for integrating fire as a critical natural process into other plans and activities on the refuge at a landscape scale. The Refuge Fire Management Plan provides specific information on the application and management of fire on the refuge. The interagency Alaska Fire Management Plan provides a cooperative framework and operational guidelines for the suppression of wildland fires. The suppression of human-caused and unwanted wildland fires and the use of nature-caused wildland fires and prescribed fires as management tools are important management prerogatives. The Refuge Fire Management Plan provides specific information on the application and management of fire on the refuge. The suppression of human-caused and unwanted wildland fires and the use of nature-caused wildland fires and prescribed fires as management tools are important management prerogatives.

Wildland Fire Suppression

Fire suppression activity is the work of confining, constraining, controlling, or monitoring a fire or portion of a fire to protect, prevent, or reduce the loss of identified values. Suppression takes place, with the highest priority being the safety of firefighters and the public, using the appropriate management

response based on values to be protected. The Alaska Interagency Wildland Fire Management Plan, amended in October 1988, is the guiding document for suppression actions. The plan establishes four management options—critical, full, modified, and limited—that direct a range of wildlife fire management responses. Refuge lands have been classified by fire management zones for limited, modified, or full suppression, with all facilities mapped.

The Bureau of Land Management Alaska Fire Service (BLM/AFS) has the authority to provide emergency suppression services on refuge lands in Alaska (DOI 2001, DM 2), as directed by the refuge manager. Through a cooperative agreement with BLM/AFS, the State of Alaska Division of Forestry has the authority to provide emergency suppression services on refuge lands in state protection zones, as directed by the refuge manager.

Wildland Fire Use

Wildland fire use is the application of the appropriate management response to naturally ignited wildland fires to accomplish resource management objectives outlined in fire management plans. Wildland fires may be used to protect, maintain, and enhance natural and cultural resources and, as nearly as possible, wildland fires will be allowed to function in their natural ecological role. Optional management is described in the refuge fire management plan.

Prescribed Fire

Prescribed fires are ignited by management action to meet specific wildland fuel, vegetation, and habitat management objectives. Prior to each ignition, a written, approved plan outlining prescription conditions is required. Use of prescribed fires must also comply with the October 2003 Alaska Enhanced Smoke Management Plan for Prescribed Fire. The plan provides guidance and direction concerning smoke issues related to prescribed fire.

2.9.3 Weed Control (Pest and Nonnative Plant Management)

Weeds can cause significant impacts to the land and water resources and to the species of plants and animals that use these habitats. To manage weeds, the refuge will include weed inventories as part of all habitat inventories. The refuge will review the proposed action's potential to introduce or spread weeds and will take measures to reduce the hazards (e.g., require weed-free feed for pack animals). The refuge will coordinate with other landowners and agencies and use integrated pest-management practices to enhance the detection, prevention, and management of weed problems. Use of chemical

control measures on refuge lands require Regional Office approval of a pesticide-use proposal (30 AM 12 and 7 RM 14).

2.10 Fish and Wildlife Population Management

Conservation of habitat is a key element in maintaining the natural diversity of populations on the refuge, and management of native fish and wildlife populations is an important component of maintaining a healthy ecosystem. The refuge will be managed consistent with the Policy on Maintaining Biological Integrity, Diversity, and Environmental Health of the National Wildlife Refuge System (USFWS, 601 FW 3) to ensure native species are managed in their natural diversity and abundance.

The State of Alaska retains primary responsibility to manage fish and resident wildlife populations on the refuge with the exception of the Service's mandated management responsibility of trust species. See Appendix XX for the Master Memorandum of Understanding between the U.S. Fish and Wildlife Service, Alaska Region, and the Alaska Department of Fish and Game. The refuge will work with the State of Alaska to conserve fish and wildlife populations, recognizing that populations may experience fluctuations in abundance because of environmental factors and may require management actions for conservation purposes. The refuge will be managed to maintain the genetic variability of wild, native fish stocks.

2.10.1 *Biotic Inventories*

Biotic inventories include activities to understand and monitor the status, trends, harvests, species distribution, habitats, and population dynamics of fish, wildlife, and plants. The collection of data on species of management concern is guided by the Inventory and Monitoring Plan for Refuge. The management objectives that form the basis for the Inventory and Monitoring Plan are found in Section of the Plan.

2.10.2 *Marking and Banding*

These activities include fish and wildlife capture, marking, banding, radio-collaring, release, tracking, and other information-gathering techniques. Cooperation with appropriate partners, including the Alaska Department of Fish and Game, will be stressed, and specific protocols will be followed, taking advantage of all appropriate disciplines and new technologies wherever possible.

2.10.3 Threatened or Endangered Species

The refuge will consult with the U.S. Fish and Wildlife Service Ecological Services field office on actions that may affect listed, proposed, or candidate species or designated or proposed critical habitat. These actions include refuge operations, public-use programs, private lands and Federal Aid activities, promulgating regulations, and issuing permits (USFWS 1973, Section 7, Consultation Handbook 1998).

2.10.4 Introductions/Reintroductions

A species may be introduced on a refuge only if that species is native to the refuge (i.e., a reintroduction). Nonnative species may not be introduced. Definitions of native and nonnative species are found in the glossary.

Reintroductions can be useful tools for restoring species to natural ranges and reestablishing a refuge's natural fish, wildlife, and habitat diversity. To maintain the natural diversity and protect the biological integrity of the refuge, reintroductions should be undertaken only where a species was extirpated by human activity (directly or indirectly) or an environmental catastrophe. The cause(s) of the extirpation should be evaluated and management actions taken to alleviate the cause(s) prior to the reintroduction.

The environmental requirements of the species and the ecological dynamics of the area proposed for the reintroduction need to be thoroughly reviewed prior to a reintroduction. Some factors to consider include behavior, diseases, general ecology of the species, habitat requirements, inter- and intra-specific competition, life history, genetics, management practices, population dynamics, and predators. Consideration should be given to whether there have been significant habitat changes since the species' extirpation (e.g., is the area still within the species' natural range). Reintroductions may require appropriate NEPA compliance, a review to ensure consistency with the biological integrity policy, an ANILCA Section 810 determination, and a refuge compatibility determination. Reintroductions also require extensive coordination with adjacent landowners and with the State of Alaska.

2.10.5 Fish and Wildlife Control

These activities involve the control, relocation, and/or removal of native species to maintain natural diversity of fish, wildlife, and habitats. These management actions may be employed with species of fish and wildlife within their original range to restore other depleted native populations. These activities are subject to appropriate NEPA compliance, an ANILCA Section 810

subsistence determination, and a refuge compatibility determination.

2.10.6 Nonnative Species Management

In general, nonnative species (including feral domestic animals) are not compatible with refuge purposes or with National Wildlife Refuge System policies. When nonnative species (fish, wildlife, or plants) occur on a refuge, the Service may control or eliminate that species. Where a population of a nonnative species has already been established on a refuge and this population does not materially interfere with or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposes of the refuge, the species may be managed as part of the refuge's diverse ecosystem.

2.10.7 Predator Management

Predator management includes the relocation, removal, sterilization, and other management of native predators to favor other wildlife populations or to protect reintroduced, threatened, or endangered species. The Service considers predator management to be a legitimate conservation tool when applied in a prudent and ecologically sound manner and when other alternatives are not practical. The key requirements are that a predator-management program must be ecologically sound and biologically justified. In keeping with our mandate to maintain fish and wildlife populations and habitats in their natural diversity, a predator population will not intentionally be reduced below a level consistent with the low-end of natural population cycles (see 601 FW 3).

A predator-management program requires appropriate NEPA compliance, an ANILCA Section 810 evaluation, and a refuge compatibility determination. Alternative management actions must be evaluated prior to pursuing direct predator-control activities. Any proposal to allow or implement a predator-management program on national wildlife refuges in Alaska will be subjected to public review and closely coordinated with the Alaska Department of Fish and Game, local communities, tribal governments, and adjacent landowners and/or managers. Predator-management activities must be monitored and evaluated for effectiveness and resource impacts.

Normal environmental education and population-management activities—such as trapper education programs and regulation changes that allow for increased harvests of predatory animals by licensed trappers and hunters—are not considered to be “predator management.” The control or extirpation of nonnative predators is not considered to be “predator management” (see Section 2.10.6).

2.10.8 Pest Management and Disease Prevention and Control

Organisms (e.g., rabies or parasites) that threaten human health and property or survival of native wildlife or plant species may be managed or removed after consideration of all reasonable options and consultation with the State of Alaska and other concerned parties. Wherever possible, an integrated approach to pest management will be used in accordance with the U.S. Fish and Wildlife Service Administrative Manual, 30 AM 12 and 7 RW 14. If chemical controls are used, a pesticide-use proposal must be submitted to the Regional Office for approval.

2.10.9 Fishery Restoration

Fishery restoration is any management action that increases fishery resources to allow full use of available habitat or to reach a population level based on historical biological data. Although the goal of restoration is self-sustaining populations, situations may exist in which some form of fishery management or facilities could continue indefinitely.

Where fishery resources have been severely adversely affected, the refuge will work with the State of Alaska, local tribes, and other partners to restore habitats and populations to appropriate, sustainable conditions. Restoration emphasis will focus on strategies that are the least intrusive to the ecosystem and do not compromise the viability or genetic characteristics of the depleted population. This may include regulatory adjustments and/or evaluations of escapement goals. If the stocks have been reduced or are threatened, temporary restoration facilities may be allowed in designated Wilderness or Wild River areas, as long as the facilities will not significantly detract from the values for which those areas were established.

2.10.10 Fishery Enhancement

Fishery enhancement is any management action or set of actions that is applied to a fishery stock to supplement numbers of harvestable fish to a level beyond that which could be naturally produced based on a determination or reasonable estimate of historic levels. This could be accomplished by stocking barren lakes, providing access to barren spawning areas (fish passages), constructing hatcheries, outstocking in productive systems, or fertilizing rearing habitat.

Refuge management priorities will focus on conserving naturally diverse ecosystems. Fishery enhancement facilities for the purposes of artificially increasing fish populations normally will not occur unless stocks have been reduced or are threatened. Proposals for fishery-enhancement projects will be

subject to the provisions of NEPA, an ANILCA Section 810 determination, and a compatibility determination. Temporary fisheries-enhancement facilities may be allowed in designated Wilderness or Wild Rivers if a minimum-requirements analysis determines the facilities are necessary and will not significantly detract from the values for which those areas were established.

2.11 Subsistence Use Management

Providing the opportunity for continued subsistence use by local residents is one of the purposes of Refuge, as stated in Title III of ANILCA. Title VIII of ANILCA further provides that rural Alaska residents engaged in a subsistence way of life be allowed to continue using refuge resources for traditional purposes. These resources include fish and wildlife, house logs and firewood, and other plant materials (berries, bark, etc.). Many aspects of subsistence management are addressed outside of this plan. The Federal Subsistence Board, through its rule-making process, addresses seasons, harvest limits, and customary and traditional use determinations. The federal board has established regional advisory councils to provide for meaningful public input to the rule-making process.

The refuge will work with others to monitor subsistence harvest, including monitoring conducted by other Federal land management agencies, the State of Alaska, tribal governments, Native organizations, or any other party. The refuge will supplement the state's ongoing harvest and resource monitoring programs to provide additional information on the status of fish and wildlife populations harvested for subsistence uses. This monitoring is intended to identify potential problems before populations of fish and wildlife become depleted and to ensure preference is given to subsistence users as required by law. All information the refuge gathers through subsistence monitoring will be shared with local state fish and game advisory committees, tribes, and other entities. The refuge attends various subsistence-related meetings, including those of local fish and game advisory committees and Regional Subsistence Advisory Councils, and provides information on the status of subsistence resources and management as it relates to the refuge.

The noncommercial gathering by local rural residents of fruits, berries, mushrooms, and other plant materials for subsistence uses and of dead standing or down timber for firewood is allowed without a special-use permit. Harvest of live standing timber for house logs, firewood, or other uses is allowed, although specific requirements vary by size and location. See 50

CFR 36.15 (U.S. Government 1996-2003) for specific details. Timber stocks subject to subsistence use will also be monitored to ensure they remain available over the long term.

Under Section 816 of ANILCA, refuge lands may be closed to the taking of fish and wildlife if closure is deemed necessary for reasons of public safety, administration, or to ensure the continued viability of particular populations of fish or wildlife. Emergency closure to subsistence taking generally would occur only after other consumptive uses competing for the resources were restricted or eliminated.

2.11.1 Access for Subsistence Purposes

Access to refuge lands by traditional means will be allowed for subsistence purposes in accordance with Section 811 of ANILCA, subject to reasonable regulation (see 50 CFR 36.12). Traditional means include snowmachines, motorboats, dog teams, and other means of surface transportation traditionally used by local rural residents engaged in subsistence activities. Use of these traditional means of travel will be in compliance with state and Federal law in such a manner to prevent waste of harvested resources or damage to the refuge and to prevent herding, harassment, hazing, or driving of wildlife.

2.11.2 Section 810 Evaluations

The refuge will evaluate the effects of proposed activities on subsistence use to ensure compliance with Section 810 of ANILCA. The refuge will work with the Federal Subsistence Board, Regional Subsistence Advisory Councils, local fish and game advisory committees, tribes, Native corporations, the Alaska Department of Fish and Game, and other appropriate local sources to determine whether a proposed activity would “significantly restrict” subsistence uses. If the refuge determines that a proposal would probably result in adverse effects to subsistence use, the refuge would follow the requirements identified in Section 810 before making a final decision on the proposal.

2.12 Public Access and Transportation Management

2.12.1 Snowmachines, Motorboats, Airplanes and Nonmotorized Surface Transportation

Section 1110(a) of ANILCA allows the use of snowmachines (during periods of adequate snow cover and frozen river conditions), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities and for travel

to and from villages and homesites. Such access shall be subject to reasonable regulations to protect the natural and other values of the refuge (43 CFR 36.11). Specific areas may be closed, in accordance with these regulations, to such uses. The refuge manager is responsible for determining when snow cover is adequate to protect the underlying vegetation and soil from damage by snowmachine use.

2.12.2 Helicopters and Off-Road Vehicles

The regulations in 43 CFR 36.11 restrict use of helicopters and off-road vehicles. The definition of off-road vehicles in 50 CFR 36.2 excludes snow machines but includes air boats and air-cushion vehicles along with motorized wheeled vehicles. Except in designated Wilderness, off-road vehicles may be allowed on designated routes or areas or by special-use permits. Special-use permits or other authorizations are required for all helicopter landings other than by the Service or in emergencies.

Helicopter landings for volcano monitoring, geologic hazards evaluations, and fisheries and wildlife management activities may be authorized by the refuge manager under special-use permit or other authorization, subject to site-specific stipulations. Helicopter landings for initial-attack fire suppression must comply with operational guidance in the Alaska Interagency Wildland Fire Management Plan. Helicopter landings by commercial operators and for general public access are not allowed in designated Wilderness unless the use was established prior to designation.

2.12.3 Access to Inholdings

Section 1110(b) of ANILCA ensures adequate and feasible access, for economic or other purposes, across a refuge for any person or entity who has a valid inholding. An inholding is defined as state-owned or privately owned land, including subsurface rights underlying public lands, valid mining claims, or other valid occupancy that is within or effectively surrounded by one or more conservation system units. When a right-of-way permit is necessary under this provision (e.g., construction of permanent or long-term facilities), the Service will review and process the application in accordance with regulations in 43 CFR 36.5, 36.6 and 50 CFR 29.21. Such permits are subject to terms and conditions as specified in the regulations at 43 CFR 36.9 and 50 CFR 29.21-4.

2.12.4 Temporary Access

43 CFR 36.12(a)(2) defines temporary access as limited, short-term (i.e., up to one year from issuance of the permit) access,

which does not require permanent facilities, to state or private lands. The refuge will evaluate application for temporary access across the refuge and will issue a permit with the necessary stipulations and conditions to ensure that the access granted is compatible with the purposes for which the refuge was established, that it complies with the provisions of Section 810 of ANILCA, and that it ensures that no permanent harm will result to the resources of the unit, area, reserve, or lands.

2.12.5 Subsistence Access

See Access for Subsistence Purposes under Subsistence Use Management (Section 2.11).

2.12.6 Transportation and Utility Systems

Transportation and utility systems include roads, highways, railroads, airports, pipelines, electrical transmission lines, communication systems, and related structures and facilities reasonably and minimally necessary for the construction, operation, and maintenance of such systems (Section 1102 of ANILCA). Anyone seeking to acquire a right-of-way across refuge lands for a transportation or utility system must, consistent with 43 CFR Part 36, file an application with the Service. Regulations in 43 CFR Part 36 and 50 CFR Part 29 establish specific procedures and time constraints for application review, compliance with the National Environmental Policy Act, decision-making, and appeals.

The Service will decide whether to approve or disapprove that portion of a transportation or utility system that would cross refuge lands, except for those on designated Wilderness. When the proposed transportation or utility system would cross a designated Wilderness area, the Service tentatively approves or disapproves the application subject to the President's subsequent decision. If the President approves, a recommendation is submitted to Congress for final approval.

A right-of-way for a transportation or utility system across refuge lands can be granted only if the system meets the compatibility standard, the criteria outlined in Section 1104(g)(2) of ANILCA, and the regulations at 43 CFR 36.7(a)(2) and if there is no economically feasible and prudent alternative route for the system. If approved, permits issued for a transportation or utility system will contain terms and conditions as required under regulations in 43 CFR 36.9(b) and 50 CFR 29.21-4. Rights-of-way that cross Wild and Scenic River corridors cannot interfere with or impede stream flow and transportation on the river (Section 1107[b] of ANILCA and the regulations at 43 CFR 36.9[c] and [d]). Additional special requirements apply to rights-of-way for pipelines issued under

the Mineral Leasing Act of 1920, 30 U.S.C. 185 (Section 1107[c] of ANILCA and the regulations at 43 CFR 36.9[d]).

For cases in which a transportation or utility system is proposed to cross areas in management categories that do not allow those systems, the authorization process would include consideration of a corresponding plan amendment.

2.12.7 State Transportation Planning

Federal transportation planning regulations require each state to develop a long-range statewide transportation plan in consultation and coordination with other government agencies and the public. In Alaska, transportation projects nominated for funding are evaluated and ranked by the Alaska Department of Transportation and Public Facilities. When appropriate, the refuge will participate in the state transportation-planning process and provide input regarding environmental considerations of proposed projects affecting refuge lands and resources. See Appendix for a discussion of state-identified potential transportation and utility systems that cross refuge lands.

2.12.8 RS 2477 Rights-of-Way

The State of Alaska asserts numerous claims to roads, trails, and paths across Federal lands under Revised Statute 2477 (RS 2477), a section in the Mining Act of 1866 that states, “The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” RS 2477 was repealed by the Federal Land Policy and Management Act of 1976, subject to valid existing claims. Under authority of the Federal Land Policy and Management Act, the Bureau of Land Management expanded the regulations at 43 CFR 1864 to allow the State of Alaska and others to apply for Federal “disclaimers” for routes of travel that applicants believe qualify as RS 2477 rights-of-way.

Identification of potential rights-of-way does not establish the validity of these claims nor the public’s right to use them. In the absence of specific regulation or law, the validity of all RS 2477 rights-of-way will be determined on a case-by-case basis, either through the courts or by legally binding agreement of all landowners.

2.12.9 Section 17(b) Easements

Section 17(b) of the Alaska Native Claims Settlement Act of December 18, 1971, authorizes the Secretary of the Interior to reserve easements on lands conveyed to Native corporations to guarantee access to public lands and waters. Easements across Native lands include linear easements (e.g., roads and trails)

and site easements. Site easements are reserved for use as temporary campsites and to change modes of transportation.

The Service is responsible for administering those public easements, inside and outside refuge boundaries, that provide access to refuge lands. Service authority for administering 17(b) easements is restricted to the lands within the easement. The size, route, and general location of 17(b) easements are identified on maps filed with conveyance documents. Conveyance documents also specify the terms and conditions of use, including the acceptable periods and methods of public access.

2.13 Recreation and Other Public Use

All refuge lands in Alaska are open to general public access (see Section 2.12) unless specifically closed. Compatible recreational uses of the refuge will continue. The Refuge Administration Act priority public uses are hunting, fishing, wildlife observation, photography, and environmental education and interpretation. These uses are encouraged and will receive emphasis in management of public use of the refuge.

Both consumptive (e.g., hunting, fishing, and trapping) and nonconsumptive (e.g., photography and wildlife viewing,) recreational uses are appropriate. Some recreational uses are incidental to others. Camping and hiking may be related to hunting, fishing, wildlife photography, or other recreational uses.

There is often a fine line between subsistence and recreational use (e.g., berry picking). Subsistence uses are addressed under Subsistence Use Management (Section 2.11). If conflicts arise, subsistence uses have priority over other uses. Priority wildlife-dependent public recreational uses then have priority over other public uses.

The refuge will be managed to provide recreation experiences in generally natural wildland settings. Recreation use would be managed consistent with the designated management area category. Intensive and Moderate Management areas will be managed for greater concentrations of visitors than will be Minimal Management and Wilderness areas. The refuge will manage all recreational use to avoid crowded conditions and to minimize adverse effects to cultural resources, fish and wildlife, wilderness, and other special values of the refuge. "Leave No Trace" will be the standard.

The least intrusive means of managing use will be employed. Education will be the primary management tool for recreation management, using brochures, maps, signs, and personal contacts. However, if voluntary methods fail, other actions may be taken. Actions that may be taken to manage recreation include limiting commercial guiding and outfitting; regulating use and access subject to the provisions of Section 1110(a) of ANILCA; and recommending changes in state and/or Federal fishing, hunting, and/or trapping regulations. When necessary, recreation opportunities may be seasonally or otherwise restricted to minimize user conflicts and to protect the natural or other values of the refuge.

Any restrictions on public use will follow the public participation and closure procedures at 50 CFR Part 36, 43 CFR Part 36, or other applicable regulations. State management actions available through the Master Memorandum of Understanding (see Appendix) and other state management tools will also be utilized where mutually desirable.

Management plans may be prepared for areas of relatively concentrated use.

2.14 Outreach

Outreach is two-way communication between the refuge and the public to establish mutual understanding, promote public involvement, and influence public attitudes and actions. The refuge will continue to take advantage of partnership opportunities in providing these services, including working with the Alaska Natural History Association; Alaska Public Lands Information Centers; local, state, and other Federal agencies; local schools; tribal governments; Alaska Native organizations; and individuals.

Use of outreach as a management tool is key to the success of many of the management activities outlined in this plan. Two outreach activities—environmental education and interpretation—are included in the six priority public uses identified in the Refuge System Improvement Act. Many other activities are also available for use by the refuge staff in its outreach program, which may be developed in more detail as a step-down management plan. All outreach activities must be continually evaluated to determine whether they fulfill refuge management goals and objectives. The refuge will ensure that these services are available to all segments of the public, including those with disabilities and those who speak languages other than English.

2.14.1 Other Outreach Activities

The refuge will work with the news media, attend public meetings and workshops, develop Internet home pages, invite the public to the refuge (open houses), and foster one-on-one communication.

2.15 Recreation Facilities

Facilities may be provided to support certain recreational uses. Recreation facilities may be located on refuge lands and at administrative sites. Visitor centers and highly developed environmental education and interpretive sites may be located off refuge lands at administrative sites or other appropriate locations. Recreation facilities may include roads, trails, boat launch sites, campgrounds, interpretive sites, environmental education sites, visitor centers, public-use cabins, visitor-contact facilities, and signs.

All new buildings (e.g., visitor centers, restrooms, public-use cabins, and visitor-contact buildings) and additions and alterations to existing buildings will comply with current accessibility standards. Other recreation facilities are not currently covered under these standards, although access for the disabled will be considered in the design of new or upgraded facilities. As funds are available, existing buildings will be updated to meet these standards.

The level of development and appearance of facilities will be appropriate for the management category of the area in which they are located. The Management Categories table (Table describes in general terms the types of facilities and design considerations by management category.

2.15.1 Cabins

Special-use permits are required for subsistence and commercial cabins. Management of existing cabins and review of proposals for construction of new cabins for traditional uses will be in accordance with the Service's cabin regulations (50 CFR 36.33). Private recreational use cabins will not be authorized.

Public-use cabins are intended to provide the public with unique opportunities to enjoy and use the refuge. They also help ensure public health and safety in bad weather and emergencies.

2.15.2 Temporary Facilities

Per Section 1316 of ANILCA, the refuge will allow the use of temporary campsites, tent platforms, shelters, and other temporary facilities and equipment directly and necessarily

related to the taking of fish and wildlife, provided these facilities are not detrimental to the purposes of the refuge. Special-use permits may be issued for tent frames, caches, smokehouses, and other facilities. Appropriate stipulations will be included in the special-use permits to ensure protection of refuge resources.

The following criteria will be considered in evaluating applications for temporary facilities:

- Where feasible, they will be located in a manner to not displace or compete with existing public uses.
- They will be located away from the vicinity of existing cabins.
- They will be located on sites that are not currently popular campsites.
- They will be located to minimize displacement of wildlife.

The following conditions may be imposed on temporary-facility special-use permits:

- The time of occupancy will coincide with the state and/or Federal hunting, fishing, and/or trapping season for the species for which the temporary facility is being used.
- At the end of the specified occupancy, tents and other readily portable materials will be removed.
- To the extent feasible, temporary structures will be built with materials that blend into and are compatible with the surrounding landscape.
- To the extent feasible, temporary facilities will be screened from water and located so that they are as unobtrusive as possible when viewed from trails and areas of significant public use.

2.16 Commercial-Use Management

Commercial uses are activities involving use of a refuge or its resources for a profit. Subsistence uses are not included in commercial uses. Refer to Section 2.11 for policies related to subsistence.

Except for mining on valid claims under the 1872 Mining Law, other activities where specific property rights are held by entities other than the Federal government, or where specifically exempted by law, all commercial uses must comply with both the National Environmental Policy Act (NEPA) and the compatibility requirements of the National Refuge System Administration Act. A written authorization (such as a special-use permit) is required to conduct commercial activities on the

refuge. Compliance with NEPA and a compatibility determination will be required prior to deciding whether to authorize a commercial use.

2.16.1 Mineral Exploration and Development

Oil and Gas Assessment

Geological and geophysical studies, including subsurface core sampling and seismic activities, require special-use permits with site-specific stipulations that ensure compatibility with refuge purposes, where applicable, and consistency with the management objectives of this plan. Decisions to allow exploration will be made on a case-by-case basis. Other than the rights reserved to the United States under Section 1010(a) of ANILCA, these activities will not be allowed in designated Wilderness.

Oil and Gas Leasing

Oil and gas leasing may be allowed only in Intensive Management areas. Oil and gas leasing will not be authorized until completion of the following:

- An assessment of potential
- A national interest determination
- A compatibility determination, where applicable
- A Plan amendment

During this process, the Service will seek the views of state and local governments and other interested parties, in accordance with Section 1008(b)(2) of ANILCA.

If leasing is authorized, lease holders will be subject to Federal leasing regulations (43 CFR 3100) and appropriate state regulations. Leases will be subject to stipulations on access, seasonal use, and site revegetation; operators would be required to use technology that minimizes impacts on fish, wildlife, and habitat. The refuge will work closely with leaseholders to minimize adverse effects of mineral exploration and extraction on refuge resources and recreation opportunities.

Sand and Gravel, and Other Common Variety (Saleable) Minerals

Common variety minerals—such as sand, gravel, stone, limestone, pumice, pumicite, cinders, and clay—may be sold pursuant to the Materials Act of July 31, 1947 (30 U.S.C. 601, 602), as amended. Regulations are found at 43 CFR 3600. Disposal is also authorized under the Refuge Revenue Sharing Act (16 U.S.C. 715s). See Part 612 FW 1 of the Service Manual (USFWS). Extraction may be authorized, where compatible, in Intensive and Moderate Management areas to support

construction and maintenance projects on or near refuge lands if no reasonable material sites exist off refuge lands.

Other Mineral Leasing

In general, mineral leasing is not allowed on refuge land. Geothermal leasing is not allowed on the refuge under Section 1014(c) of the Geothermal Steam Act (30 U.S.C. 1014). Coal mining is also prohibited, subject to valid existing rights, under Section 16 of the Federal Coal Leasing Amendment Act of 1975 (30 U.S.C. 201 Notes) and the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1272.; 43 CFR 3400.2). In specific cases of national need, however, mineral exploration, development, or extraction may be permitted under Section 1502 of ANILCA. The President must determine that the national need for the mineral activity outweighs the other public values of the land. Any recommendation by the President would take effect only after enactment of a joint resolution by Congress.

Alaska Mineral Resource Assessment Program

Section 1010 of ANILCA requires that all Federal lands be assessed for their oil, gas, and other mineral potential, although Section 304(c) prohibits new hardrock mining on refuges. Mineral assessment techniques that do not have lasting impacts—such as side-scanning radar, trenching, and core drilling—may be allowed throughout the refuge. Special-use permits issued to other government agencies or their contractors for assessment work would include stipulations to ensure that the assessment program is compatible with refuge purposes. For example, stipulations may limit access during nesting, calving, spawning, or other times when fish and wildlife may be especially vulnerable to disturbance.

2.16.2 Commercial Recreation Services

Air-taxi operators, wildlife-viewing guides, tour operators, wilderness guides, recreational fishing guides, big-game hunting guides, and others providing recreation services are required, under 50 CFR 27.97, to obtain special-use permits to operate on refuge lands. Where the number of special-use permits is limited, refuge managers will award permits competitively (see 50 CFR 36.41). Special-use permits require compliance with all applicable laws and regulations (for example, Coast Guard licensing regulations). Permit stipulations ensure that camps; travel methods; storage of food, fish, and game meat; and activities are compatible with refuge purposes and reduce the potential for impacts to resources and to other refuge users. If problems arise relating to commercial recreation activities—such as disturbance of active nests, conflicts with subsistence use, chronic incidence of bears getting

into food, or violations of state or Federal regulations—the refuge may modify or terminate use under the special-use permit stipulations. The refuge will monitor the number and type of guides and outfitters operating in the refuge and the number of their clients and will, if necessary, further regulate use.

Under Section 1307 of ANILCA, local preference is provided for all new commercial visitor services except guiding for recreational hunting and fishing. Regulations defining local preference are in 50 CFR 36.37.

2.16.3 Commercial Fishing and Related Facilities

Under Section 304(d) of ANILCA, the Service will continue to allow individuals with valid commercial fishing rights or privileges to operate on the refuge. The use of campsites, cabins, motor vehicles, and aircraft on the refuge in support of commercial fishing is subject to reasonable regulation. Section 304(d) further specifies that commercial fishing rights may not be granted if the use is determined to be inconsistent with refuge purposes *and* to be a “significant expansion of commercial fishing activities . . . beyond the level of such activities during 1979.” The Service recognizes that fishery levels are cyclic and will take that into consideration when applying the 1979-level criteria. Any new fishery and related facilities and equipment will have to meet the compatibility standard.

Aquaculture and mariculture support facilities may be allowed in Intensive Management, subject to provisions of state and Federal laws. Seafood processing plants will not be allowed.

2.16.4 Commercial Harvest of Timber and Firewood

Commercial harvest of timber and firewood will only be authorized under a special-use permit and when necessary to fulfill overall refuge management objectives. When an approved refuge fire management plan identifies the need to reduce fuel loads in an area, commercial harvest of timber and firewood may be authorized to accomplish that management objective. Applicable Federal and State of Alaska guidelines for timber management will be followed.

2.16.5 Commercial Gathering of Other Resources

Gathering other resources (e.g., antlers and mushrooms) may be authorized by a special-use permit under 50 CFR 27.51.

2.16.6 Other Commercial Uses

Generally, other commercial uses such as hydroelectric power development will not be allowed. See Section 2.12.6 for transmission lines, pipelines, and other rights-of-way mentioned in Title XI of ANILCA.

2.17 Environmental Contaminants Identification and Cleanup

One goal of the National Wildlife Refuge System Administration Act is to maintain the biological integrity, diversity, and environmental health of the system. In support of this goal, the Service has studied environmental contaminants that may threaten trust species (i.e., those species for which the Service has primary jurisdiction) and other refuge resources. This work will continue as new concerns are identified and as funding allows.

An assessment of known or suspected contaminants threats within Refuge is planned to start in (was completed in) as part of the national Contaminants Assessment Process; existing information for each refuge will be reviewed, and an assessment of potential contaminants threats will be entered into an electronic database. A contaminant assessment report will also be prepared for each refuge.

When contaminants are identified on refuge lands, the Service will initiate discussions with the responsible party or parties to remedy the situation. If the Service caused the contamination, funds will be sought to define the extent and type of the contamination and to remedy it. Appropriate environmental regulations—including the Resource Conservation Recovery Act, Comprehensive Environmental Response and Compensation Liability Act, Oil Pollution Act of 1990, and State of Alaska regulations (e.g., 18 AAC 75)—would be followed during remediation work.

All spills of petroleum products and hazardous materials must be reported to the Alaska Division of Environmental Conservation and to the National Response Center. Incidents also need to be reported to the U.S. Fish and Wildlife Service Regional Spill Response Coordinator. The refuge will refer to the U.S. Fish and Wildlife Service Region 7 Spill Response Contingency Plan when responding to spills.

2.18 Management of Designated Wilderness

Designated Wilderness will be managed in accordance with the Wilderness Act of 1964, as modified by provisions of ANILCA, Service guidelines as found in 6 RM 8 of the Refuge System Manual (Part 610 of the Service Manual, when approved), and regional policy. Maintaining wilderness values and resources, preserving the wilderness character of the biological and physical resources, and providing opportunities for research and recreation are the management focuses for designated Wilderness. A minimum-requirements analysis will be conducted for management activities proposed in Wilderness areas. This two-step process involves determining if the activity should be conducted in the Wilderness area and then determining the combination of methods, equipment, or administrative practices necessary to successfully and safely administer the refuge and accomplish Wilderness management objectives.

Certain activities are legislatively prohibited in designated Wilderness, including oil, gas, and other mineral leasing; most surface-disturbing activities; and the use of most types of motorized and mechanized equipment. Other activities—including subsistence use, access for traditional activities, and traditional commercial recreational activities (e.g., guiding and outfitting)—will continue to be allowed where compatible with Wilderness management and refuge and system purposes.

Generally, motorized and mechanized equipment is prohibited by the Wilderness Act. Several exceptions, however, were identified in ANILCA:

- For access for subsistence purposes (Section 811)
- For access for traditional activities and to and from villages and homesites (Section 1110[a])
- For access to state or privately owned lands (including subsurface rights), valid mining claims, or other valid occupancy (Section 1110 [b])
- For mineral assessment purposes, as part of the Alaska Mineral Resource Assessment Program (Section 1010)

Details of these provisions can be found under the appropriate heading in this section of this conservation plan.

Under 50 CFR 35.5(b), regional policy (RW-16) allows local residents engaged in subsistence activities to use chainsaws. Other motorized and mechanized equipment not related to transportation (such as generators and water pumps) are not allowed.

Granting rights-of-way for transportation or utility systems through designated Wilderness requires a Presidential

recommendation for Congressional approval (Section 1106[b] of ANILCA) (see Section 2.12.6).

A step-down management plan may be prepared for designated Wilderness to address in greater detail the resources, uses, and management of the Wilderness area. Specific details would be included on how the broad management directions provided in the conservation plan would be applied in designated Wilderness to protect the specific wilderness characteristics identified in the conservation plan. The step-down plan would be prepared in cooperation with and would include appropriate public involvement.

2.19 Administration of National Wildlife Refuge

2.19.1 Administrative Sites and Visitor Facilities

Under Section 1306 of ANILCA, the Secretary may establish administrative sites and visitor facilities, either within or outside the boundaries of a conservation system unit, in accordance with the unit's management plan and for the purposes of ensuring the preservation, protection, and proper management of said unit. This section further states that to the "extent practicable and desirable, the Secretary shall attempt to locate such sites and facilities on Native lands in the vicinity of the unit."

Department of Interior guidelines, developed in 1995, implementing Section 1306 of ANILCA require that prior to initiating a search for an administrative site or visitor facility, site-selection criteria be developed, with public input, and all proposals be evaluated according to the site-selection criteria. If it is determined that Native lands satisfy the site-selection criteria and are desirable and practicable for the intended use, the highest-ranking Native lands shall be selected as the preferred site, subject to a specific site evaluation. If no Native lands satisfy the site-selection criteria, the highest-ranking parcel will become the preferred site. Public comments will be considered prior to making a final decision.

Applicability of Refuge Regulations to Off-Refuge Administrative and Visitor Facility Sites

Part 50 of CFR 36.1(c) authorizes the Service to enforce regulations concerning public safety and protection of government property, as well as State of Alaska fish and wildlife regulations, on administrative and visitor facility sites that may be held in fee or less-than-fee title and are either inside or outside the approved boundaries of any Alaska national wildlife refuge.

2.19.2 Refuge Management Plans

Some management programs are addressed in sufficient detail in the conservation plan to be integrated directly into the budgetary process. For other programs, it may be necessary to prepare step-down management plans to implement general strategies identified in the conservation plan. Additional information on the step-down planning process can be found in Part 602, FW 3, of the Service Manual (USFWS).

The following step-down management plans for Refuge are required:

Station Safety Plan	Completed ; next review
Fire Management	To be completed by

In addition, the following optional step-down management plans should be developed:

3. References

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